



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/767,459	01/23/2001	Masami Aizawa	F-6842	2130

7590 06/18/2002

Jordan and Hamburg LLP  
122 East 42nd Street  
New York, NY 10168

EXAMINER

NGUYEN, TRAN N

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/767,459	AIZAWA ET AL.
Examiner	Art Unit	
Tran N. Nguyen	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 14 May 2002.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 26-29 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 26-29 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 23 January 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)  The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, *at least one North pole and at least one South pole at alternating positions along a circumference of the molded body* must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Objection*

3. **Claims 26-29** are objected because the recited term "*doughnut shaped molded body*" does not have support in the Specification, i.e., the specification does not provide antecedent basis for this recited term in the claims. Instead, the specification discloses a cylindrical/cylinder shaped molded body; therefore, the applicant is advised to use "*cylindrical/cylinder shaped molded body*" which is clearly established antecedent basis by the specification.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 26-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Matsumura et al (US 4088909)** in view of **Yamagami et al (JP 411283817A)** and **Takahashi (US 5728232)**.

Matsumura discloses a motor comprising: a stator (12) and a rotor assembly (11) having a rotor permanent magnet (21), which is shown to have a substantial doughnut, shaped body. Matsumura substantially discloses the claimed invention, except for the limitations of the rotor made of SmFeN and resin binder and a phosphate coating, particularly aluminum phosphate material, entirely covering an outside surface of the molded body.

Yamagami, however, teaches a resin-bonded-SmFeN-molded magnet. Yamagami teaches that the resin-bonded-SmFeN-molded magnet would have high heat resistance, superior size stability, high mechanical strength and superior magnetic characteristics. Furthermore, those skilled in the art would know that there always should exist a small air gap between the rotor and the stator, particularly for a miniature motor such as timepiece motor, resin-bonded-SmFeN-powder molded magnet would enable precision in the rotor's dimension to ensure a sufficient air gap therebetween.

In addition, Takahashi teaches a resin-bonded-magnet-powder molded magnet can be improved in the quality and stabilized against effects of atmospheric oxygen and humidity by forming coating layer of aluminum phosphate on the surface. Those skilled in the art would realize that the Takahashi's important teaching is that to prevent oxidation, the rare-earth permanent magnet should be coated with a layer of aluminum phosphate. Thus, it would have been obvious to an artisan to apply this essential teaching to provide an entire outer surface of

the rotor magnet with a coat of aluminum phosphate for preventing the magnet from being rusted.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the Matsumura's motor by employing a resin bonded SmFeN magnet, as taught by Yamagami, as the Matsumura's rotor magnet. Doing so would provide the motor with a rotor magnet with high heat resistance, superior size stability, high mechanical strength and superior magnetic characteristics resulting in improve reliability and performance of the motor.

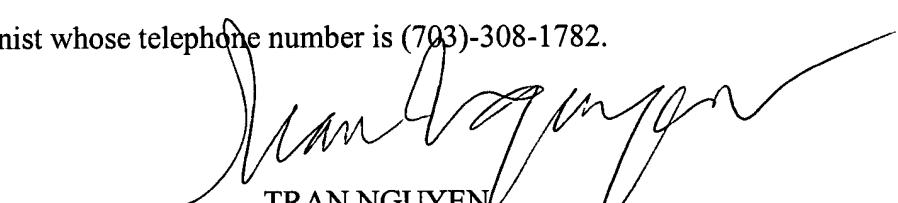
Furthermore, it would have been obvious to one skilled in the art at the time the invention was made to modify the Matsumura motor's rotor magnet by providing a layer of aluminum phosphate on the surface of the magnet, as taught by Takahashi. Doing so would improve the reliability of the rotor magnet as the result of resistance against oxidation effects of atmospheric oxygen and humidity.

*Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N Nguyen whose telephone number is (703) 308-1639. The examiner can normally be reached on M-F 6:00AM-2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703)-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)-395-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.



TRAN NGUYEN

PRIMARY PATENT EXAMINER

TC-2800